6-2500-9203-2
E002/CN-94-795

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE MINNESOTA PUBLIC UTILITIES COMMISSION

In the Matter of the Application of Northern States Power Company for a Certificate of Need for Approximately 100 Megawatts of Wind Generation	FINDINGS OF FACT, CONCLUSIONS AND RECOMMENDATION

The above-entitled matter came on for hearing before Allan W. Klein, Administrative Law Judge, on January 19, 1995, in St. Paul. A week earlier, on January 12, public hearings were held in Lake Benton, Minnesota.

Appearing on behalf of Northern States Power Company, the Applicant, was Jeffrey C. Paulson, 414 Nicollet Mall, Fifth Floor, Minneapolis, Minnesota 55401.

Appearing on behalf of the Department of Public Service was Ellen Gavin, Assistant Attorney General, 1200 NCL Tower, 445 Minnesota Street, St. Paul, Minnesota 55101.

Appearing on behalf of the Attorney General's Office, Residential Utilities Division, was Eric Swanson, Assistant Attorney General, 1200 NCL Tower, 445 Minnesota Street, St. Paul, Minnesota 55101.

Appearing on behalf of the staff of the Public Utilities Commission was David Jacobson, Minnesota Public Utilities Commission, 350 Metro Square Building, 121 Seventh Place East, St. Paul, Minnesota 55101.

The record in this matter was closed on February 7, 1995, upon receipt of the last transcript.

Notice is hereby given that, pursuant to Minn. Stat. § 14.61, and the Rules of Practice of the Public Utilities Commission and the Office of Administrative Hearings, exceptions to this Report, if any, by any party adversely affected must be filed within 20 days of the mailing date hereof with the Executive Secretary, Minnesota Public Utilities Commission, 160 East Kellogg Boulevard, St. Paul, Minnesota 55101. Exceptions must be specific and stated and numbered separately. Proposed Findings of Fact, Conclusions and Order should be included, and copies thereof shall be served upon all parties. If desired, a reply to exceptions may be filed and served within ten days after the service of the exceptions to which reply is made. Oral argument before a majority of the Commission will be permitted to all parties adversely affected by the Administrative Law

Judge's recommendation who request such argument. Such request must accompany the filed exceptions or reply, and an original and 15 copies of each document should be filed with the Commission.

The Minnesota Public Utilities Commission will make the final determination of the matter after the expiration of the period for filing exceptions as set forth above, or after oral argument, if such is requested and had in the matter.

Further notice is hereby given that the Commission may, at its own discretion, accept or reject the Administrative Law Judge's recommendation and that siad recommendation has no legal effect unless expressly adopted by the Commission as its final order.

STATEMENT OF ISSUE

Does the Applicant's proposal to install approximately 100 megawatts of wind generation meet the statutory and rule criteria which govern the granting of a Certificate of Need?

Based upon all of the proceedings herein, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Background

1. NSP is a Minnesota corporation and public utility engaged in the business of providing electricity and natural gas to retail customers in Minnesota and four other states. In its 1994 session, the Minnesota Legislature enacted statutes which require NSP to construct and operate, purchase, or contract to construct and operate 225 megawatts of electric energy installed capacity generated by wind energy conversion systems within the state by December 31, 1998. Minn. Stat. § 216B.2423, subd. 1 (1994). NSP was also authorized to utilize casks for storage of spent nuclear fuel from its Prairie Island nuclear generating station; NSP's ability to use casks six through nine was premised on its demonstration that it had "constructed, contracted for construction and operation, or purchased installed capacity of 100 megawatts of wind power..." prior to December 31, 1996. Minn. Stat. § 116C.771(b)(1994). See Exh. G at 1-2; Exh. H at 1.

2. On August 25, 1994, NSP filed a request with the Commission for an exception from certain filing requirements with respect to an application for a certificate of need for a wind generation project approximately 100 megawatts in size, pursuant to Minn. Rule 7849.0200, subp. 6. In an order dated October 6, 1994, the Commission exempted NSP from the requirements of Minn. Rules 7849.0270, 7849.0280, 7849.0290, 7849.0320(B)-(H) and (J), and 7849.0340. The requirements of Minn. Rules 7849.0240, subp. 1, 7849.0250(E), 7849.0300 and 7849.0310 were clarified in the context of NSP's

proposed Project. Commission Docket No. E002/CN-94-795, Order Granting Exemption from Certain Filing Requirements and Variance, October 6, 1994.

3. On September 23, 1994, NSP filed its Application for a Certificate of Need for a Proposed 100 MW Wind Energy Generation Facility with the Commission. Exh. G. On October 6, 1994, NSP supplemented its Application by filing the Certificate of Site Compatibility Application which it had previously filed with the Minnesota Environmental Quality Board ("MEQB"). Exh. H. In an order dated October 20, 1994, the Commission accepted NSP's Application as complete in accordance with Minn. Rule 7849.0200, subp. 5. Commission Docket No. E002/CN-94-795, Order Accepting Filing and Delegating Preparation of Environmental Report, October 20, 1994. The Commission delegated its responsibility for preparation of an environmental report on the proposed project to the Department of Public Service ("DPS"). Id. at 2-3. See Minn. Rules 4410.7000 and 4400.7100.

4. On October 20, 1994, the Commission issued its Notice and Order for Hearing referring the matter to the Office of Administrative Hearings for assignment to an Administrative Law Judge. The order made NSP and DPS parties to the proceeding. A prehearing conference was held on November 22, 1994 before the Administrative Law Judge. The Office of Attorney General filed a petition to intervene, which was granted without objection. No other petitions to intervene were filed by the December 15, 1994 deadline.

5. Public hearings on NSP's Application and the draft Environmental Report prepared by DPS, as required by Minn. Stat. § 216B.243, subd. 4, and Minn. Rule 4410.7100, were held at 2:00 p.m. and again at 7:00 p.m., on January 12, 1995, in Lake Benton, Minnesota. An evidentiary hearing was held on January 19, 1995 in St. Paul, Minnesota. Notices of the public and evidentiary hearings were published as follows:

The Buffalo Ridge Gazette	January 4, 1995
Lincoln County Valley Journal	January 4, 1995
Marshall, MN Independent	January 5, 1995
Pipestone County Star	January 5, 1995
Minneapolis Star Tribune	January 5, 1995
The Tyler Tribute	January 5, 1995
St. Paul Pioneer Press	January 5, 1995

Proofs of publication were filed by NSP on January 30,1995.

Applicable Statutory and Rule Criteria

6. Minn. Stat. § 216B.243 prohibits siting or constructing a large energy facility in Minnesota without first obtaining a certificate of need from the Commission. Minn. Stat. § 216B.243 and Minn. Rules, parts 7849.0010 through 7849.0400 set forth the criteria which must be met to establish need for proposed large energy facilities. Minn. Stat. § 216B.243, subd. 3, requires that the Commission evaluate several factors in assessing whether the applicant has justified the need for a proposed facility, including:

(1) The accuracy of the long-range energy demand forecasts on which the necessity for the facility is based;

(2) The effect of existing or possible energy conservation programs under sections 216C.05 to 216C.30 and this section or other federal or state legislation on long-term energy demand;

(3) The relationship of the proposed facility to overall state energy needs, as described in the most recent state energy policy and conservation report prepared under section 216C.18.

(4) Promotional activities that may have given rise to the demand for this facility;

(5) Socially beneficial uses of the output of this facility, including its uses to protect or enhance environmental quality;

(6) The effects of the facility in inducing future development;

(7) Possible alternatives for satisfying the energy demand including, but not limited to, potential for increased efficiency of existing energy generation facilities;

(8) The policies, rules, and regulations of other state and federal agencies and local governments; and

(9) Any feasible combination of energy conservation improvements, required under section 216B.241, that can (i) replace part or all of the energy to be provided by the proposed facility, and (ii) compete with it economically.

7. As set forth in Minn. Rule 7849.0120, a certificate of need must be granted to the applicant if:

A. The probable result of denial would be an adverse effect upon the future adequacy, reliability, or efficiency of energy supply to the applicant, to the applicant's customers, or to the people of Minnesota and neighboring states, considering:

(1) The accuracy of the applicant's forecast of demand for the type of energy that would be supplied by the proposed facility;

(2) The effects of the applicant's existing or expected conservation programs and state and federal conservation programs;

(3) The effects of promotional practices of the applicant that may have given rise to the increase in the energy demand, particularly promotional practices which have occurred since 1974;

(4) The ability of current facilities and planned facilities not requiring certificates of need to meet the future demand; and

(5) The effect of the proposed facility, or a suitable modification thereof, in making efficient use of resources.

B. A more reasonable and prudent alternative to the proposed facility has not been demonstrated by a preponderance of the evidence on the record, considering:

(1) The appropriateness of the size, the type, and the timing of the proposed facility compared to those of reasonable alternatives;

(2) The cost of the proposed facility and the cost of energy to be supplied by the proposed facility compared to the costs of reasonable alternatives and the cost of energy that would be supplied by reasonable alternatives;

(3) The effects of the proposed facility upon the natural and socioeconomic environments compared to the effects of reasonable alternatives; and

(4) The expected reliability of the proposed facility compared to the expected reliability of reasonable alternatives.

C. By a preponderance of the evidence on the record, the proposed facility, or a suitable modification of the facility, will provide benefits to society in a manner compatible with protecting the natural and socioeconomic environments, including human health, considering:

(1) The relationship of the proposed facility, or a suitable modification thereof, to overall state energy needs;

(2) The effects of the proposed facility, or a suitable modification thereof, upon the natural and socioeconomic environments compared to the effects of not building the facility;

(3) The effects of the proposed facility, or a suitable modification thereof, in inducing future development; and

(4) The socially beneficial uses of the output of the proposed facility, or a suitable modification thereof, including its uses to protect or enhance environmental quality.

D. The record does not demonstrate that the design, construction, or operation of the proposed facility, or a suitable modification of the facility, will fail to comply with relevant policies, rules, and regulations of other state and federal agencies and local governments.

Description of Project

8. NSP's proposed wind project ("Project") will be located in an area known as the Buffalo Ridge near the city of Lake Benton, Minnesota. NSP has selected two proposed sites for the Project, known as the northeast and southwest sites. Exh. G at 3, and App. 2; Exh. H at 1, and figure 2; NSP Exh. A at 2 and Exh. 2. The sites are approximately 19,000 acres and 14,000 acres in size, respectively. NSP Exh. A at 2. The proposed sites were developed to maximize potential wind energy production, minimize adverse environmental and social impacts and ease integration with existing and future wind projects and NSP's transmission facilities. NSP Exh. A at 2-3; NSP Exh. B at 2-11.

9. The wind generation facilities to be located on the proposed site are expected to consist of wind turbines mounted on towers, step-up transformers, an electrical feeder system and related transmission facilities to deliver the electricity generated to NSP's Buffalo Ridge substation and related access roads and maintenance and control facilities. NSP Exh. B at 11. NSP will upgrade its Buffalo Ridge substation to accommodate the increased load.

10. The nameplate capacity of the Project is expected to be 100 MW. NSP proposes to purchase all capacity and energy produced by the Project. Id. at 16. In general, as wind passes over the rotors of the turbines, they will turn and generate electricity whenever windspeeds exceed 7-10 mph. Id. at 12. No means of storing electricity generated is anticipated. Id. Based on expected availability, turbine efficiency, wind characteristics, and overall project size, energy production from the Project is estimated to be approximately 243,550 MWh per year.

11. On September 27, 1994, NSP filed its application for a Certificate of Site Compatibility with the MEQB. Exh. H. The MEQB reviews proposed sites, including alternatives proposed by third parties or on its own initiative, and requires completion of an Environmental Impact Assessment. NSP Exh. A at 7. The MEQB process is expected to

be completed between June and August, 1995, at which time MEQB will designate the final site for the proposed project. Id. at 7-8.

12. The Project will be developed by a bidder or bidder(s) selected as the result of a bidding process established by NSP and approved by the Commission. NSP Exh. D at 22. Bid awards are expected to be made during the second quarter of 1995. Id. at 23. NSP will own and operate the substation, feeder system and, in absence of some other agreement with developers, the wind easements for use by the winning bidder(s). The bidder(s) will provide all turbines, towers and related facilities. Id. at 22-4. The size and siting of turbines, towers and other bidder facilities will be determined by the winning proposal(s).

Assessment of Project Based upon Statutory and Rule Criteria

Accuracy of Forecast Demand

13. NSP identified its need for additional generating capacity in its 1993 Integrated Resource Plan ("1993 Plan") developed pursuant to Minn. Rules 7843.0200, et seq. NSP Exh. D at 4. As originally proposed, the 1993 Plan proposed the addition of 40-50 MW of wind generation for 1996-8. Id. After the passage of the 1994 legislation mandating certain additions of wind generation, the 1993 Plan was revised to show the addition of 100 MW of wind generation in 1996 and another 100 MW in 1998. Id. at 5. The accelerated timing and increased size of the Project is a direct response to the 1994 statutory mandates rather than increased electric demand. Id. at 2.

14. The 1993 Plan was approved by the Commission in an order dated July 15, 1994. In its order, the Commission specifically found that NSP's forecast model has produced forecasts that have been extremely accurate over the long term. NSP Exh. D at 13 and Exh. 4. Docket No. E002/RP-93-630, Order Approving NSP's 1993 Resource Plan As Modified, July 15, 1994, at 4.

15. The addition of the Project to NSP's system will meet some of NSP's projected demand and satisfy the requirements of statutory mandates. The Project may lead to small reductions in the size of other planned generating additions which are demand-driven, and the Project's energy production is expected to displace more expensive generating resources on NSP's system to some extent, with resulting savings. NSP Exh. D at 6, 8; NSP Exh. C at 9 and Exh. 2.

16. The Project is required and will be used to meet the long-range capacity and energy needs of NSP's customers. The Project will be one of NSP's generating resources contributing, through efficient management of all such resources, to NSP's ability to produce electricity at the most cost-effective level possible. NSP Exh. D at 14. By meeting the statutory mandate, the Project also permits the continued use of other economical generating resources as well. Id.

Effects of Conservation Programs

17. NSP engages in substantial conservation efforts. The cost of NSP's electric conservation programs in 1994 alone is expected to exceed $42 million. The effect of NSP's programs is projected to reduce 1997 demand by 125 MW and energy needs by 398 GWh. NSP Exh. D at 13-14.

18. Because the Project is principally a response to statutory mandates, NSP's conservation programs will not reduce or eliminate the reason for which NSP proposes to construct the Project.

19. NSP will purchase all capacity and energy produced by the Project irrespective of the price of such capacity and energy relative to other generating resources on NSP's system. NSP Exh. B at 16. The demand for energy and capacity from the Project will not be affected by conservation efforts as a result.

Effects of Promotional Practices

20. NSP's economic development and other activities which may affect system demand did not create the need for the Project. NSP Exh. D at 17. The Project is a response to statutory directives which are not demand-based, and, thus, even if NSP engaged in promotional activities, these activities would not have been responsible for the Project.

Ability of Existing Facilities to Meet Demand

21. The 1994 statutes specifically direct the addition of 225 MW of wind generation to NSP's system. NSP currently has only 25 MW of wind generation on its system. As a result, to meet the statutory mandate, NSP needs to add 200 MW of wind generation to its system. NSP's non-wind generating resources cannot be used to satisfy the wind mandates. While other wind additions to NSP's system might be possible instead of the Project, either through individual contracts with developers, smaller bid processes, or dispersed wind generation, pursuit of these alternatives would create (1) a risk that the statutory deadlines might not be met, (2) increased regulatory and administrative costs, (3) difficulties of system integration, and (4) the possibility of holdout pricing by developers increasing the overall costs of the generation additions. NSP Exh. D at 18-19.

Efficient Use of Resources

22. The Project must be located in the State of Minnesota to meet statutory requirements. Minn. Stat. § 216B.2423, subd. 1 (1) (1994). NSP used existing wind resource data, and developed additional wind data, in order to identify locations within Minnesota which had the best wind characteristics for energy production. See NSP Exh. A at 2-3; NSP Exh. B at 11.

23. The analyses of the U.S. Department of Energy, Minnesota Department of Public Service ("DPS") and NSP identified the elevated area in Lincoln and Pipestone Counties known as Buffalo Ridge as the area in which wind resources are superior relative to other Minnesota locations. NSP Exh. B at 3-5. More detailed analysis by NSP of the wind characteristics in the Buffalo Ridge area led to identification of the two sites proposed by NSP for the Project as the sites most likely to maximize production of energy from available wind resources. Id. at 4-11. Bidders had the opportunity to propose alternative sites with superior production potential in their bids. NSP Exh. D at 22-4; NSP Exh. A at 7-8.

24. Bidders will have strong incentives to operate the Project as efficiently as possible in order to maximize production and, thus, their revenues. As a result, maintenance and other factors within the control of the Project owners will be conducted efficiently in a manner least likely to adversely affect production. NSP Exh. B at 16-18; Exh. G at 2.

25. The Project will make a contribution to NSP's system reliability, although the contribution is expected to be minimal due to the inherent variability of wind and the Project's size relative to NSP's system. NSP Exh. D at 20.

26. The Project will utilize available, unused wind resources which otherwise may not have been developed. The NSP proposed sites allow for an orderly, efficient layout of wind turbines, minimize the impact on existing land uses, and are designed to integrate with existing and future wind projects and available transmission and substation resources. NSP Exh. D at 16.

Alternatives to the Facility

27. Because the Project is a response to statutory directives specifying wind as the generation resource to be used, generation resources based on non-wind resources are not available alternatives to the Project. NSP Exh. D at 17.

28. The size and timing of wind projects is also constrained by the legislation, in that total additions must equal 100 MW by the end of 1996 in order for NSP to use four additional casks for storage of spent nuclear fuel from its Prairie Island nuclear generating station. Alternatives with a smaller total capacity which would not meet the 1996 deadline are therefore also not feasible.

29. The option of developing a project larger than 100 MW was considered by NSP. Permitting a project larger than 100 MW would have been likely to take more time than allowed by the statute. NSP Exh. D at 18. Moreover, spreading the required wind additions over several years in increments of 100 MW permits NSP to distribute the corresponding financial impact of these additions. Id. at 17. To the extent the wind generation industry is experiencing technology improvements and declining costs, spreading additions over time allows NSP to capture the benefits of these improvements and savings. Id.

30. Within the context of a 100 MW project, a number of specific alternatives exist, the range of which will be defined by the bids received in NSP's bidding process. NSP Exh. B at 12-14. Turbines may range in size from 250 kW to 500 kW in size. Id. at 12. Turbines will generally have either one to three blades on a horizontal axis or two blades on a vertical axis. Horizontal axis turbines will be mounted on top of a tower support structure which will be either lattice or tubular in design. Id. at 13. Blade sizes and tower heights will be selected by bidders. Id. at 13-14. Horizontal turbines are less efficient but more readily shut down at high speeds. Vertical axis turbines are more efficient but more susceptible to damage in high winds. Id. at 14.

31. Bidders will also propose their own layout for turbines. Turbines are generally designed in strings, but the exact placement of towers and strings will be left to bidders. NSP Exh. B at 8-10. Bidders will consider wind direction, ridge slope and topography, wake interaction and array effects. Id. If a bidder uses 500 kW turbines, about 200 machines will be needed, with spacing between towers of approximately 650 feet and spacing between strings from 1000 to 2000 feet. Id. at 10. If a bidder uses 250 kW turbines, requiring 400 machines, turbines can be spaced more closely together, and will occupy no more space than the smaller number of larger machines. Id. at 10-11.

32. Irrespective of turbine siting, size and configuration, generated electricity will be carried to step-up transformers designed and sited to meet the winning bidder(s) project, and collected and sent to NSP's Buffalo Ridge substation. NSP Exh. B at 14-15. Bidders will propose control facilities and maintenance facilities to service their proposed facilities. Id.

33. Alternatives to NSP's proposed sites could be proposed by bidders or MEQB. Only one proposal for an alternative site was received prior to the MEQB's December 29, 1994 deadline. NSP Exh. A at 8. The proposed alternative suggests inclusion of additional acreage to NSP's proposed northwest site rather than a discrete new site. Id.

34. The bidding process is expected to result in selection of a Project which will produce the most economical and efficient alternative to meet the 100 MW requirement. The independent evaluator selected to analyze bids will recommend the project or combination of projects which best meet NSP's requirement for the most economical wind generating resource possible. NSP Exh. D at 22.

Cost Comparison of Project and Energy Produced

35. Because non-wind generation resources are not available alternatives, the relevant cost comparison is to other wind generation alternatives totaling 100 MW. The cost of the Project consists of costs incurred by the developer(s) and costs incurred by NSP. See NSP Exh. D at 22-25; NSP Exh. C.

36. The costs incurred by developers will be determined by the bidding process and are therefore expected to be the least cost alternatives available. NSP Exh. D at 22. The bids will be evaluated by an evaluator independent of NSP. Id. NSP estimates the total capital cost of the developers' portion of the Project will be 100 million dollars. Id. at 20-21. This is consistent with the Commission's order regarding NSP's 1993 Plan. NSP estimated developers' operating and maintenance costs to be approximately $.0075/kWh, which is less than historical experience because such costs have been declining in recent years. NSP Exh. B at 22-23.

37. NSP's costs related to the Project consist of bidding and regulatory costs, the cost of constructing a feeder system between the Project and substation, substation improvement costs, and the expenses associated with acquiring the necessary wind rights for the Project. NSP Exh. D at 24-5. These costs are expected to total about $16.37 million. Id. Relative to any wind generation alternative located in the Buffalo Ridge area, of similar total size, roughly the same costs would be necessary, with the possible exception of wind right acquisition costs.

38. NSP elected to acquire options for wind and facility easements in the two sites proposed by NSP for the Project. Developers interested in bidding on all or a part of the Project may rely on use of an NSP provided site. If such bid(s) are selected, NSP would convey sufficient wind rights for the Project to the developer(s), or may propose a Project on land to which they may hold wind rights. Through this acquisition of necessary wind rights, the bidding process will result in the most competitively priced proposals by eliminating wind/land rights issues from the bidding equation.

39. Using its cost assumptions, NSP analyzed the possible net cost of the Project to ratepayers using traditional revenue requirement analysis. NSP Exh. C. Assuming that NSP purchased power from the Project at a cost ranging from four cents to six cents per kilowatt-hour, total Minnesota jurisdictional electric revenue requirements were estimated to increase between $6.5 million and $10.2 million annually. Id. at 10. This includes several million dollars in annual savings from displacement of higher cost energy by more economic wind energy. Id. at 8-9. Under these assumptions, the Project would increase rates between $.00024/kWh and $.00038/kWh. Id. at 10.

40. No evidence was presented indicating that any other wind generation alternative would meet the size and time requirements of the statute and also provide a more economical source of energy for NSP.

Effects on the Natural and Socioeconomic Environments

41. The Project will generate no emissions or waste, and is thus preferable to all non-renewable generating resources. Exh. H; NSP Exh. A at 3. The Project will have no significant impact on wildlife, historical sites, archaeological sites or other environmental concerns. NSP Exh. A at 3-4. Wetlands will be avoided in the final siting. Id.

42. The energy produced by the Project is expected to displace other sources on NSP's system which do produce air emissions. The reduction in annual air emissions is expected to be 429.82 tons of SOx; 442.11 tons of NOx; 12.22 tons of particulate matter; 273,803.23 tons of CO_2; 4.91 tons of VOC; and .0063 tons of mercury. DPS Exh. E at 10 (as corrected at Tr.30).

43. The other potential environmental impacts of the Project include increased noise levels, increased avian mortality, removal of land from existing agricultural uses, and aesthetic considerations. DPS Exh. E at 9-10; NSP Exh. A at 4-7. NSP has taken steps to minimize any adverse impact of these potential impacts and none of these environmental problems is expected to occur at a significant level. NSP Exh. A at 4-7; Exh. H.

44. The Project, while sited over thousands of acres, is expected to remove only 60 to 70 acres from production due to actual turbine placement. The location of access roads will be set to minimize land use disruptions. Acreage not in direct use by turbines will remain available for continued agricultural use, and crop and livestock production is expected to be unimpeded. NSP Exh. A at 4-5. NSP will also ensure that any potential for increased erosion is minimized. DPS Exh. E at 9-10; DPS Exh. F, Attachment 1.

45. Wind turbines produce noise in their immediate vicinity, and different turbine designs affect the amount of noise produced. Bidders will be expected to comply fully with minimum standards set by the Minnesota Pollution Control Agency. Buffer zones of at least 500 feet will be required between turbines and residences or structures in order to allow for dissipation of noise produced. As a result, no significant adverse environmental or health impact is expected. NSP Exh. A at 5-6.

46. No significant increase is expected in avian mortality. The Project is not located in a migratory flyway and most birds are expected to fly at heights above turbine structures. NSP Exh. A at 6; Exh. H, chapter 6.0.

47. The visual impact of the towers is subjective. While there may be some aesthetic objection to the addition of towers to the area, no substantial public concern has been voiced. NSP Exh. A at 7.

48. The Project will create two substantial socioeconomic benefits. Landowners will receive increased income through the purchase of their wind rights by NSP or developers. Second, the Project will create a substantial number of construction jobs and activity in the area, and is expected to lead to five to seven permanent jobs for

Project operation, maintenance and control. DPS Exh. E at 10-11; Exh. G at 27. To the extent the Project causes an increase in rates which would otherwise be avoidable, the increase may have an adverse effect on NSP customers. Exh. G at 27.

Reliability

49. The reliability of the Project depends on two factors, the mechanical availability of the turbines and the extent to which the wind blows. NSP Exh. B at 17. Although turbines will be sited to take maximum advantage of available resources, the amount of wind available is not subject to control. NSP has created incentives to ensure maximum mechanical availability of turbines and maximum utilization of wind resources. Id. at 18.

50. Wind generation is not always available when needed due to the inherent variability of the wind, but the Project will contribute to system reliability, if only in a minimal way. NSP Exh. D at 20.

Benefits of the Project

State Energy Needs

51. DPS and the Commission produced a report in 1992 describing the energy needs of the State of Minnesota and objectives for meeting those needs. NSP Exh. D at 14. One key goal is to double the amount of renewable-based generating resources used within Minnesota by 2020. Id. at 15. The addition of the Project will lead to the attainment of 25 percent of that goal. Together with the scheduled future additions of wind and biomass generation, the Project will contribute to the realization of the State's renewables goal well ahead of schedule. Id. The Project will also enhance utilization of in-state energy resources and reduce reliance on generation fueled by out-of-state resources. Exh. G at 24.

Effects on the Environment/Alternative of No Construction

52. Because the Project is mandated by law, the alternative of not constructing the Project is not available. The Project offers significant environmental benefits relative to use of existing generation without significant adverse environmental impacts.

Future Development

53. The Project is one phase of a series of wind generation additions and will foster those future projects. Local businesses and landowners will benefit from purchases of land rights and construction activities. Some permanent job creation will also result. Exh. G at 27.

Socially Beneficial Uses

54. The Project creates environmental benefits, some economic and job benefits, contributes to State energy goals, and will enhance the development of renewable resources and technologies.

Compliance with Policies, Rules and Regulations

55. The evidence in the record establishes that the Project will comply with relevant policies, rules and regulations of the MEQB, other state and federal agencies, and local governments. The issuance of a certificate of need will not conflict with any other regulatory requirements, including those associated with NSP's bidding process. NSP Exh. A at 7-8; Exh. G at 28-9; DPS Exh. E at 11-12.

56. Construction of the Project through a bidding process encourages competition consistent with the objectives of the Energy Policy Act of 1992. Exh. G at 29.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. Any of the foregoing Findings which more properly should be designated as Conclusions are hereby adopted as such.

2. The Minnesota Public Utilities Commission duly acquired and has jurisdiction over this matter.

3. All relevant substantive and procedural requirements of law and rule have been fulfilled.

4. The application substantially conforms to the requirements of all applicable statutes and rules, as interpreted by orders of the MPUC.

5. The record in this matter demonstrates, principally due to the legislative mandates of Minn. Stat. § 216B.2423, that the probable result of denying the certificate of need would be an adverse effect on the future adequacy, reliability, and efficiency in the supply of electricity to NSP and NSP's customers.

6. No participant in this matter has demonstrated a more reasonable and prudent alternative to constructing the Project.

7. The record in this matter demonstrates the Project will provide benefits to society compatible with protecting both natural and socioeconomic environments, including human health.

8. The record in this matter does not demonstrate that the design, construction, or operation of the Project will fail to comply with the relevant policies, rules, and regulations of other state and federal agencies and local governments.

Based on the foregoing, the Administrative Law Judge makes the following:

RECOMMENDATION

That the Public Utilities Commission GRANT a Certificate of Need for this Project.

Dated this ___ day of February, 1995.

_____

ALLAN W. KLEIN
Administrative Law Judge

Reported: (Evidentiary) Court reported, Janet Shaddix
Janet Shaddix & Associates, Bloomington, MN

(Public) Tape recorded, transcript prepared from tape by
Mary Ann Hintz, Andover, MN

MEMORANDUM

This proceeding was unusual in a number of respects. First of all, many of the elements of the "need" determination were predecided by the Legislature, when they directed the construction of this wind generation. But another unusual feature of this proceeding was the total lack of public opposition to the proposed project. Public hearings were held in both the afternoon and evening of January 12 in Lake Benton, and members of the public were also invited to appear and testify at the evidentiary hearings in St. Paul. While some interested persons appeared at Lake Benton, and one appeared in St. Paul, none voiced any opposition to the project. Most of the discussion at the public hearings centered around the procedures and formula for payments to landowners. While one individual voiced general support for the environmental goals that would be served by wind generation (evening transcript, at p. 29), there was a noticeable absence of comment and debate indicating any opposition to the proposed project.

AWK